DOCUMENT RESUME

ED 258 423 EC 172 943

AUTHOR Evans, Robert J.
TITLE Special Education Consultation: Interactive Video Simulation: Adults, Teachers & Consultants.
PUB DATE [85]
NOTE 12p.
PUB TYPE Reports - Descriptive (141) -- Computer Programs (101)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Computer Assisted Instruction; Consultation Programs; *Disabilities; *Inservice Teacher Education; *Microcomputers; *Online Systems; *Videotape Recordings
IDENTIFIERS Apple IIe

ABSTRACT

A microcomputer controlled interactive videotape program is described as one way to supply special education teachers with inservice and/or consultation services. The approach allows inservice teachers to strengthen classroom teaching skills outside of the classroom. Programing directions are offered written in the SuperPILOT Authoring Language on an Apple IIe Computer using a BCD interface card and a Panasonic NV 8200 video tape recorder. (CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy

ED258423

Special Education Consultation: Interactive Video Simulation ;

Adults, Teachers & Consultants

Robert J. Evans

Assistant Professor of Special Education

Troy State University

EC179943

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Melissa Curtis

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Abstract

The demand for reforms in public school education are having a direct affect on special education teachers. Inservice teacher training programs need to better assist the regular classroom teacher with his/her teaching assignment. Newly acquired teaching and classroom management skills need to be more fully mastered before the teacher experiments with their use in the actual teaching situation. Teaching assignments may require continuous "fine-tuning" of teaching skills, but should not be the environment for the development of new skills.

The incorporation of interactive video microcomputer simulations into inservice methods workshops may provide a means for the practicing teacher to strengthen his/her classroom teaching skills outside of the classroom. Interactive video tape and/or video disc programs can be used to give the inservice teacher similar experiences to those encountered in the actual classroom. In this way, methods workshops may become more capable of assisting teachers through experiential approaches in place of more descriptive ones.

This paper describes a simulation program developed help special education teachers consult with regular education classroom teachers. The program was written in SuperPILOT on an Apple IIe using a BCD interface card and a Panasonic NV 8200 video tape recorder.

Microcomputers have become an accepted teaching tool. Their application in the classroom is predicted to have far reaching effects on many aspects of the educational system (Evans(a)). This paper will address the usefulness of the microcomputer in facilitating the consultative role of the special education teacher.

Since the passage of PL 94 - 142, and the mandate that all handicapped students be taught in their "least restrictive environment", the vast majority of special students in the public schools have received services through either a resource room and/or consulting teacher (Friend & McNutt, 1984).

Both of these models necessitate the special student receiving the majority of his/her instruction within the regular classroom (Heward & Orlansky, 1984; Polloway, Payne, Patton, & Payne, 1985). Thus, the regular classroom teacher must assume ever increasing responsibility for the instruction of handicapped students. Unfortunately, many regular classroom teachers report feeling untrained, unprepared, and sometimes fearful of working with special students (Lerner, 1985). Therefore, it is essential that the regular classroom teacher receive support and consultation to provide appropriate learning experiences for the special students in his/her classroom (Hundert, 1982).

Special Education Teacher Consultant Role

Special education teachers have recognized that they must be skilled consultants in order to successfully meet the needs of special students in regular education classrooms (Haight, 1984). Both the resource room model and the consulting teacher model have been shown to help the handicapped student obtain comparable academic improvement (Hundert, 1982). However, results of the consulting teacher model indicate that regular education classroom teachers also make improvements (Haight, 1984). The special students success in the regular education classroom partially depends on the regular education classroom teacher's attitude towards special students and the teacher's instructional skill development (Hundert, 1982; Salend, 1984). It appears that the consultant component of the special education teacher's duties may be an important one in developing the successful participation of special students in regular education classrooms.

Fortunately, a recent survey of administrators and regular education classroom teachers indicates that both administrators and teachers are becoming more receptive to the special education teacher in a consulting role (Evans, 1981). Even though consultation was not seen as the primary duty of the special education teacher (direct instruction was still viewed as primary) it was seen as a role requiring an increased percentage of the special education teacher's professional time (100% increase). In addition, the special education teachers viewed their roles as requiring increased consultation and communication with regular education classroom teachers and parents (Davis, 1983; Evans, 1981); and saw a need to reduce their clerical duties as well (Evans, 1981).

Principle of Consultation and Inservice

The basic principle of inservice and/or consultation by special education teachers for regular education classroom teachers, paraprofessionals, and/or parents has a good deal of support (Powers, 1983). It is the traditional operationalization of inservice and consultation delivery systems that receives much criticism (Powers, 1983). Parents and professionals working with exceptional students experience many similar difficulties and frustrations (Lerner, 1985). The traditional inservice and consultation delivery systems have often produced more of the stress, anxiety, and problems that they were intended to minimize (Gallagher, Beckman, & Cross, 1983; Haight, 1984).

Preservice education can not and does not prepare a teacher for his/her professional lifetime (Powers, 1983). In addition, PL 94 - 142 requires all professionals responsible for the education of handicapped students to actively participate in inservice activities (Snowder, 1982; Haight, 1984). It becomes very apparent that inservice and consultation services need to be supplied, but their traditional modes of delivery need to change. Suggestions derived from past non - traditional programs which have achieved some success include that the content needs to be positive, specific, and clear (Heward, Dardig, & Rossett, 1979). The delivery systems need to provide disability simulation, information on handicapping conditions, and direct and indirect contact with exceptional individuals (Salend, 1984). The use of audio-visual methods have been well accepted, especially by parents (Heward, et.al., 1979). Films and/or video tape can be used to suggest and model modifications of management strategies and modifications in teaching approaches (Cohen, 1982). The use of various forms of educational technology offers participants a non - threatening, self-paced , and an opportunity for active involvement in individualized media delivered programs (Heward, et.al., 1979).

The use of microcomputers has been widely documented as a means of both supplying direct instruction to handicapped students and reducing the clerical duties of the special education teacher (Hagen, 1984; Taber, 1984). The rest of this paper will deal with a proposed method of using microcomputer controlled interactive video tape programs to enhance the special education teacher's consultation and/or inservice duties. It will suggest the use of a "shell program" written in Apple Super PILOT (Apple Computer, 1982) to control a video tape of a student during various school and/or home activities and at various levels of appropriate/inappropriate behavior during the student's day. The proposed "shell program" should be viewed as a beginning, to be modified to meet the particular needs of individual consultants and their consultees.

The Shell Program

The shell program consists of a "Lesson Hello" plus a lesson for each teacher that has responsibility for the student (ie. "Lesson One" for teacher number one, "Lesson Two" for teacher number two, etc.). The actual program is written in the SuperPILOT Authoring Language (Apple Computer, 1982; Apple Computer(b), 1982) using a multi-variable format. It is interacts with a video tape of a student by inserting specific frame numbers from the video tape address code into the video command variables of the SuperPILOT Authoring Language.

Video Tape

The first step is the production of a video tape of the student concerned in the various environments he/she is required to normally function. This is probably the most time consuming component of the project. However, one could combine it with routine classroom observations, use a mounted remote video camera, and or utilize a volunteer and/or paraprofessional. The procedure does not require precise editing because the microcomputer selects the sequences shown.

Address Code

The SuperPILOT Authoring Language disk does not contain enough memory space to hold the procedures required to place address code on the video tape. The Instructor Authoring Language (BCD, 1984) is used to place the address code onto the

video track two. This code constitutes the means by which particular scenes on the video tape can be located and viewed.

Scene Identification

Instructor is also used to determine the beginning and ending locations of each scene selected to be viewed. The specific frame numbers are then printed to facilitate insertion into the SuperPILOT video command variables.

Lesson Hello

The initial lesson is labeled "Hello" in order to make the lesson disk "self-booting". It contains the compute commands to identify the user, the students, and all teachers by name in the program. It also contains the Teacher Menu which allows the user to select the teacher(s) he/she wishes to observe.

Print of lesson Hello

```
t:VIDEO TAPE INITIALIZATION PROCEDURE
t:PLEASE WAIT
v:prol 60
v:slot4
v:aud1
v:init
r: n$ - consumer's name
r: s$ - student's name
r: t1$ - first teacher's name
r: t2$ - second teacher's name
r: t3$ - third teacher's name
r: t4$ - fourth teacher's name
r: t5$ - fifth teacher's name
r: t6$ - resource teacher's name
r: r$ - press return

d: n$(30)
d: s$(30)
d: t1$(25)
d: t2$(25)
d: t3$(25)
d: t4$(25)
d: t5$(25)
d: t6$(25)
d: r$(50)

c:s$="client"
c: t1$ = "Mrs. Smith"
c: t2$ = "Mr. Till"
c: t3$ = "make another selection"
c: t4$ = "make another selection"
c: t5$ = "make another selection"
c: t6$ = "Bob Evans"
c: r$ = "Please press return when you are ready to continue"
g:es
```

```
t: Please type in your name.  $r$ .
a: n$
g:es
t: Hello $n$ , this is an observation of $s$ , written by $t6$ .
t:
t: I hope you find this helpful to your instruction of $s$ .
t:
t: The following material should help you better understand $s$ .
t:
t: $r$ .
as:
g:es

*teach
t: Please type the number preceding  the name of the teacher you would like
   to observe working with $s$ .
t:
t:
t:      TEACHER MENU
t:
t:
t: 1  t1$
t: 2  t2$
t: 3  t3$
t: 4  t4$
t: 5  t5$
t: 6  t6$
as:
g:es
mj: 1
j(t1$=0):teach
l: one
mj: 2
j(t2$=0):teach
l: two
mj: 3
j(t3$=0):teach
l: three
mj: 4
j(t4$=0):teach
l: four
mj: 5
j(t5$=0):teach
l: five
mj: 6
j(t6$=0):teach
l: six
m: 1!2!3!4!5!6
tn: $n$ , please type a number 1-6.
tn: $r$ .
as:
jy: teach
```

Lesson One

This lesson contains the compute commands to identify the beginning and ending frame numbers for each scene depicting the student with teacher number one. It also contains a menu which allows the user to select the behavior(s) he/she wishes to observe in this classroom and/or to return to the Teacher Menu in "Lesson Helio".

Print of lesson One

```
r: f1$ - find command for appropriate behavior
r: p1$ - play command for appropriate behavior
r: f2$ - find command for inappropriate behavior
r: p2$ - play command for inappropriate behavior
r: f3$ - find command for classroom management
r: p3$ - play command for classroom management
r: f4$ - find command for skill instruction
r: p4$ - play command for skill instruction

d: f1$(12)
d: p1$(12)
d: f2$(12)
d: p2$(12)
d: f3$(12)
d: p3$(12)
d: f4$(12)
d: p4$(12)

c: f1$ = " "
c: p1$ = " "
c: f2$ = " "
c: p2$ = " "
c: f3$ = " "
c: p3$ = " "
c: f4$ = " "
c: p4$ = " "

t: $n$ , welcome to the observational setting showing $s$  in $t1$ 's class.
t:
t: The next page will allow you to select the type of behavior you wish to
 : observe.
t:
t: $r$ .
as:
g:es
*menu
t:
t: $n$ , please type the number preceding  the behavior you wish to observe.
t:
t:
t: $t1$ 's Class
t:
t:
t: 1  appropriate behavior
t: 2  inappropriate behavior
```

```
t: 3  classroom management
t: 4  skill instruction
t: 5  teacher menu
as:
g:es
mj: 1
j(f1$=0):menu
jy: one
mj: 2
j(f2$=0):menu
jy: two
mj: 3
j(f3$=0):menu
jy: three
mj: 4
j(f4$=0):menu
jy: four
mj: 5
l: Hello,teach
m: 1!2!3!4!5
tn: $n$ , please type a number 1-5.
t:
t: $r$ .
as:
g:es
jy: menu

*one
t: This video observation will show $s$  displaying appropriate behaviors in
   $t1$ 's class.
v: $f1$ .
t:
t: $r$ .
as:
g:es
t: please wait for the video tape
v: $p1$ .
g:es
jy: menu

*two
t: This video observation will show $s$ displaying inappropriate behaviors in
   $t1$ 's class.
v: $f2$ .
t:
t: $r$ .
as:
g:es
t: please wait for the video tape
v: $p2$ .
g:es
j:menu
```

```
*three
t: This video observation will show the behavior management program for $s$
   in $t1$ 's class.
v: $f3$ .
t:
t: $r$ .
as:
g:es
t: please wait for the video tape
v: $p3$ .
g:es
j:menu

*four
t: This video observation will show $s$ 's skill instruction in $t1$ 's class.
v: $f4$ .
t:
t: $r$ .
as:
g:es
t: please wait for the video tape
v: $p4$ .
g:es
j:menu
```

"Lesson Hello" and "Lesson One" have been inserted here to aid the reader. The other teacher lessons ("Lesson Two", "Lesson Three", etc.) are not included because of their similarity to "Lesson One". As previously stated, this program should be viewed as a device very amenable to personal modification. A suggested addition that could prove to be very valuable might be the inclusion of commands allowing the user to interact with the program even while the video tape is playing (Evans(b), 1985). These commands can be included to offer the user some simulated practice with the methods and/or strategies demonstrated in the program.

Summary

The level of intensity of an inservice and/or consultation model is determined by the degree to which the training directly trains a participant to work with a specific child's problems (Browder, 1982). Browder suggests the following levels of intensity:

1. Training supplies information
2. Participant applies suggested program and receives feedback based on a written report
3. Trainer observes the participant
4. Trainer works directly with the child as a demonstration (p.304)

The microcomputer controlled interactive video tape program (MCIVTP) should be capable of supplying inservice and/or consultation services somewhere between levels three and four of Browder's scale of service intensity. It offers the user the opportunity for active participation, self-directed learning, practical application, demonstration, and practice. The MCIVTP would be extremely helpful to special education teachers working with handicapped students experiencing changes of significant professionals in their lives. It would be most useful in preparing paraprofessionals (Lerner, 1985) and new receiving teachers in the regular classroom

(Hundert, 1982).

Two special education teacher attitudes appear to require adjustment before their role as consultants can become more successful. Although special education teachers ranked the ability to communicate with parents (ranked #3) and consultation skills with regular classroom teachers (ranked #7) relatively high, they also ranked two successful modes of delivering these services relatively low. The use of audio visual equipment (ranked #29) and demonstration teaching (ranked #31) were given very low priority on the list of skills considered important for being a successful special education teacher (Davis, 1983).

The intuitively projected benefits of the MCIVTP approach will should stimulate the necessary attitude adjustment. The expected enthusiastic participation, involvement, and successful experiences of both consultees and their charges will hopefully supply sufficient stimulus to the special education teachers.

References

Apple Computer. (1982). Apple SuperPILOT Editor's Manual. Cupertino, California: Apple Computer, Inc. 178pp.

Apple Computer(b). (1982). Apple SuperPILOT Language Reference Manual. Cupertino, California: Apple Computer, Inc. 314pp.

BCD. (1984). The Civic System: Computer Interactive Video for Instruction and Communications. Oklahoma City, Oklahoma: BCD Associates.

Browder, D. Guidelines for inservice planning. Exceptional Children, 1982, 49(3), 300-306.

Chapman, J.E. & Heward, W.L. Improving parent-teacher communication through recorded telephone messages. Exceptional Children, 1982, 49(1), 79-82.

Cohen, J.H. (1982). Handbook of Resource Room Teaching. Rockville, MD: Aspen Systems Corporation. 324pp.

Davis, W.E. Competencies and skills required to be an effective resource teacher. Journal of Learning Disabilities, 1983, 16(10), 596-598.

Evans(a), R.J. (in press). How school systems should purchase microcomputers: The software evaluation method. Proceedings of the B.Y.T.E. 1984 National Conference on Microcomputers, Education, and Children.

Evans(b), R.J. (in press). Preservice special education training: Interactive video simulation. Alabama Council for Exceptional Children Journal.

Evans, S. Perceptions of classroom teachers, principals, and resource room teachers of the actual and desired roles of the resource teacher. Journal of Learning Disabilities, 1981, 14(10), 600-603.

Friend, M. & McNutt, G. Resource room programs: Where are we now? Exceptional Children, 1984, 51(2), 150-159.

Gallagher, J.J., Beckman, P. & Cross, A.H. Families of handicapped children: Sources of stress and its amelioration. Exceptional Children, 1983, 50(1), 10-19.

Hagen, D. (1984). Microcomputer Resource Book for Special Education. Reston, VA: Reston Publishing Company, Inc., 207pp.

Haight, S.L. Special education teacher consultant: Idealism versus realism. Exceptional Children, 1984, 50(6), 507-515.

Heward, W.L., Dardig, J.C. & Rossett, A. (1979). Working with Parents of Handicapped Children. Columbus:Charles E. Merrill Publishing Co., 299pp.

Heward, W.L. & Orlansky, M.D. (1984). Exceptional Children (2nd ed.). Columbus: Charles E. Merrill Publishing Co., 592pp.

Hundert, J. Some considerations of planning the integration of handicapped children into the mainstream. Journal of Learning Disabilities, 1982, 15(2), 73-80.

Lerner, J. (1985). Learning Disabilities: Theories, Diagnosis, and Teaching Strategies (4th ed.), Boston: Houghton Mifflin Company, 581pp.

Polloway, E.A., Payne, J.S., Patton, J.R. & Payne, R.A. (1985). Strategies for Teaching Retarded and Special Needs Learners (3rd ed.). Columbus: Charles E. Merrill Publishing Co., 516pp.

Powers, D.A. Mainstreaming and the inservice education of teachers. Exceptional Children, 1983, 49(5), 432-439.

Rose, T.L., Lessen, E.I. & Gottlieb, J. A discussion of transfer of training in mainstreaming programs. Journal of Learning Disabilities, 1982, 15(3), 162-165.

Salend, S.J. Factors contributing to the development of successful mainstreaming programs. Exceptional Children, 1984, 50(5), 409-416.

Taber, F.M. (1983). Microcomputers in Special Education, Selection and Decision Making Process. Reston, VA: The Council for Exceptional Children, 102pp.